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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Complete if Known Application Number 10/006,524 Filing Date 12-03-2001 First Named Inventor Jacob *et al*. Group Art Unit 1646 Attorney Docket Number COR2006 (07907.105007)

!	U.S. PATENT DOCUMENTS					
Examiner Initials *	Cite No. 1		ind Code ² f known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages/Relevant Figures Appear
MM	AA	3,798,209		Witkowski et al.	03-19-1974	
	AB	5,128,458		Montgomery et al.	07-07-1992	
	AC	5,372,808		Blatt et al	12-13-1994	
	AD	5,446,029		Eriksson et al.	08-29-1995	
	AE	5,491,135		Blough	02-13-1996	
	AF	5,610,054		Draper	03-11-1997	
	AG	5,676,942		Testa et al.	10-14-1997	
	AH	5,725,859		Omer	03-10-1998	
	ΑI	5,738,845		Imakawa	04-14-1998	
	AJ	5,830,455		Valtuena et al.	11-03-1998	
	AK	5,837,257		Tsai <i>et al</i> .	11-17-1998	
	AL	5,846,964		Ozeki et al.	12-08-1998	
	AM	5,849,696		Chretien et al.	12-15-1998	
	AN	5,849,800		Smith	12-15-1998	
	AO	5,858,389		Elsherbi	01-12-1999	·
	AP	5,869,253		Draper	02-09-1999	
	AQ	5,891,874		Colacino et al.	04-06-1999	
	AR	5,908,621		Glue et al	06-01-1999	
	AS	5,922,757		Chojkier	07-13-1999	
	AT	5,922,857		Han et al.	07-13-1999	
	AU	5,928,636		Alber et al.	07-27-1999	
	AV	5,942,223		Bazer et al.	08-24-1999	
	AW	5,969,109		Bona et al.	10-19-1999	
	AX	5,972,347		Eder et al.	10-26-1999	
	AY	5,980,884		Blatt et al.	11-09-1999	
	AZ	5,990,276		Zhang et al.	11-23-1999	
U	AAA	6,001,799		Chretien et al.	12-14-1999	

Examiner Signature	Date Considered 1-26-63
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				Group Art Unit	1646	16	20	
Sheet	2	of	5	Attorney Docket Number	COR2006 (07907.10500	7) (5)	02	

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		U.S. Patent Docume	ent		Date of	
Examiner Initials *	Cite No. 1		nd Code ² known)	Name of Patentee or Applicant of Cited Document	Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages/Relevant Figures Appear
MM	BA	6,001,990		Wands et al.	12-14-1999	
	BB	6,004,933		Spruce et al.	12-21-1999	
	BC	6,027,729		Houghton et al.	02-22-2000	
	BD	6,030,960		Morris-Natschke et al.	02-29-2000	
	BE	6,034,134		Gold et al.	03-07-2000	
	BF	6,043,077		Barber et al.	03-28-2000	
	BG	6,056,961		Lavie et al.	05-02-2000	
V	BH	RE29,835		Witkowski et al.	11-14-1978	-

	FOREIGN PATENT DOCUMENTS							
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MM	BI	WO	99/2935	0	Anderson et al.	17-06-1999		

	OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS					
Examiner Initials *	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T _e			
MM	BJ	BAKER, J.A. et al. "Viral Diarrhea in Cattle" Am. J. Vet. Res., (October 1954) 525-531.				
	BK	BASSETT, S.E. et al. "Analysis of Hepatitis C Virus-Inoculated Chimpanzees Reveals Unexpected Clinical Profiles." J. Virol., (April 1998) 72(4): 2589-2599.				
V	BL	BATTAGLIA, A.M. et al., "Combination Therapy with Interferon and Ribavirin in the Treatment of Chronic Hepatitis C Infection." Ann. Pharmacother. (April 2000) 34(4):487-494.				

Examiner Signature	Date Considered	1-26-03
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Examiner Initials *	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶		
MM	CA	BERENGUER, M. et al. "Hepatitis C virus in the transplant setting." Antivir. Ther. 3. Suppl. 3:125-136, 1998.			
	СВ	CERNEY, A., et al. "Pathogenesis of Chronic Hepatitis C: Immunological Features of Hepatic Injury and Viral Persistence." Hepatology (September 1999) 30(3):595-601.			
	CC	CHISARI, F.V., and Ferrari, C. Viral hepatitis. <i>In</i> : Viral Pathogenesis. Ed: Nathanson, N., <i>et al.</i> Lippincott-Raven Publishers, Philadelphia, 1997: 745-778.			
	CD	CORAPI, W.V. et al. "Characterization of a panel of monoclonal antibodies and their use in the study of the antigenic diversity of bovine viral diarrhea virus." Am. J. Vet. Res. (September 1990) 51(9):1388-1394.			
	CE	CORAPI, W.V. et al. "Severe Thrombocytopenia in Young Calves Experimentally Infected with Noncytopathic Bovine Viral Diarrhea Virus." J. Virol., (September 1989) 63(9):3934-3943.			
	CF	COTE, P.J., et al. "New Enzyme Immunoassays for the Serologic Detection of Woodchuck Hepatitis Virus Infection." Viral Immunology (1993) 6(2):161-169.			
	CG	CUTLIP, R.C. et al. "Lesions in Clinically Healthy Cattle Persistently Infected with the Virus of Bovine Viral Diarrhea - Glomerulonephritis and Encephalitis." (December 1980) Am. J. Vet. Res., 41(12): 1938-1941.			
	СН	DAVIS G.L. "Current Therapy for Chronic Hepatitis C." Gastroenterology (2000) 118:S104-S114.			
	CI	DIBISCEGLIE, A.M., et al. "The Unmet Challenges of Hepatitis C." Scientific American, (October 1999): 80-85.			
	CJ	FERNELIUS, A.L. et al. "Bovine Viral Diarrhea Virus-Host Cell Interactions: Adaptation, Propagation, Modification, and Detection of Virus in Rabbits." (September 1969) Am. J. Vet. Res., 30 (9): 1541-1550.			

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Sheet	4		of	5

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Application Number	10/006,524			
Filing Date	12-03-2001			
First Named Inventor	Jacob et al.			
Group Art Unit	1646			
Attorney Docket Number	COR2006 (07907.105007)			

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS					
Examiner Initials *	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	J.e		
4	DA	GERIN, J.L., et al. "Hepatitis B Virus and Liver Cancer: The Woodchuck as an Experimental Model of Hepadnavirus-induced Liver Cancer." Viral Hepatitis and			
MM		Hepatocellular Carcinoma. (1990) Eds. Hollinger, F.B., et al. Williams & Wilkins Publishers, Baltimore, 1990:556-559.			
	DB	HAINES, D.M. et al. "Monoclonal antibody-based immunohistochemical detection of bovine viral diarrhea virus in formalin-fixed, paraffin-embedded tissues." Vet. Path., (1992) 29:27-32.			
	DC	HOOFNAGLE, J.H., et al. "Drug Therapy: The Treatment of Chronic Viral Hepatitis." New Engl. J. Med., (1997) 336(5):337-356.			
	DD	HORNBUCKLE, W.E., et al. "Laboratory Assessment of Hepatic Injury in the Woodchuck (Marmota Monax)." Lab. Anim. Sci., (August 1985) 35: 376-381.			
	DE	HOUE, H. "Epidemiological features and economical importance of bovine virus diarrhoea virus (BVDV) infections." <i>Veterinary Microbiology</i> , (1999) 64:89-107.			
	DF	HOUGHTON, M. "Hepatitis C Viruses." <i>Fields Virology</i> , 3 rd ed. Eds. Fields, B.H., <i>et al.</i> Lippencott-Raven Publishers, Philadelphia, 1996: 1035-1058.			
	DG	JACOB, J.R. et al. "Characterization and Immortalization of Woodchuck Hepatocytes Isolated from Normal and Hepadnavirus-Infected Woodchucks (Marmota monax)." Experimental Cell Research. (1994) 212:42-48.			
	DH	JACOB, J.R. et al. "Hepatic Expression of the Woodchuck Hepatitis Virus X-Antigen During Acute and Chronic Infection and Detection of a Woodchuck Hepatitis Virus X-Antigen Antibody Response." <i>Hepatology</i> (December 1997) 26(6):1607-1615.			
	DI	JAECKEL et al., "Treatment of Acute Hepatitis C with Interferon Alfa-2b." N. England J. Med., (November 15, 2001), 345(20):1452-1457.			
V	DJ	LIESS, B. "Bovine viral diarrhea virus." <i>In: Virus infections of ruminants.</i> B. Morein and Z. Dinter eds: Elsevier Science Ltd, 1990.			

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¹Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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			Group Art Unit	1646
Sheet 5	of	5	Attorney Docket Number	COR2006 (07907.105007)

		OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T _e
MM	EA	MENNE, S. et al "T-Cell Response to Woodchuck Hepatitis Virus (WHV) Antigens during Acute Self-Limited WHV Infection and Convalescence and after Viral Challenge." J. Virol., (July 1998) 72(7): 6083-6091.	
	EB	MENNE, S., et al. "Unraveling hepatitis B virus infection of mice and men (and woodchucks and ducks)." Nature Med., (October 1999) 5(10):1125-1126.	
	EC	MEYERS, G., et al. "Molecular Characterization of Pestiviruses." Adv. In Virus Res., (1996) 47: 53-118.	
	ED	MILLER, R.H., et al. "Hepatitis C virus shares amino acid sequence similarity with pestiviruses and flaviviruses as well as members of two plant virus supergroups." <i>Proc. Natl. Acad. Sci. USA</i> (March 1990) 87: 2057-2061.	
	EE	NEGRO, F. et al. "Detection of intrahepatic replication of hepatitis C virus RNA by in situ hybridization and comparison with histopathology." (March 1992) Proc. Natl. Acad. Sci. USA, 89: 2247-2251.	
	EF	OHMANN, H. et al "Demonstration of Bovine Viral Diarrhea Virus in Peripheral Blood Mononuclear Cells of Persistently Infected, Clinically Normal Cattle." J. Gen. Virol. (1987) 68: 1971-1982.	
	EG	PEREZ, J. et al. "Mutants of the Rous Sarcoma Virus Envelope Glycoprotein that Lack the Transmembrane Anchor and Cytoplasmic Domains: Analysis of Intracellular Transport and Assembly into Virions." J. Virol., (October 1987) 61(10):2981-2985.	
	EH	PONZETTO, A. et al. "Transmission of the hepatitis B virus-associated δ agent to the eastern woodchuck." (April 1984) Proc. Natl. Acad. Sci. USA, 81: 2208-2212.	
	EI	RICE, C.M. "Flaviviridae: The Viruses and Their Replication." <i>Fields Virology</i> , 3 rd ed. eds. Fields, B.H., <i>et al.</i> , Lippencott-Raven Publishers, Philadelphia, 1996: 931-959.	
	EJ	THUR, B. et al. "Immunohistochemical diagnosis of pestivirus infection associated with bovine and ovine abortion and perinatal death." (December 1997) Am. J. Vet. Res., 58(12): 1371-1375.	

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